

Upper Yellowstone River (272 River Miles)

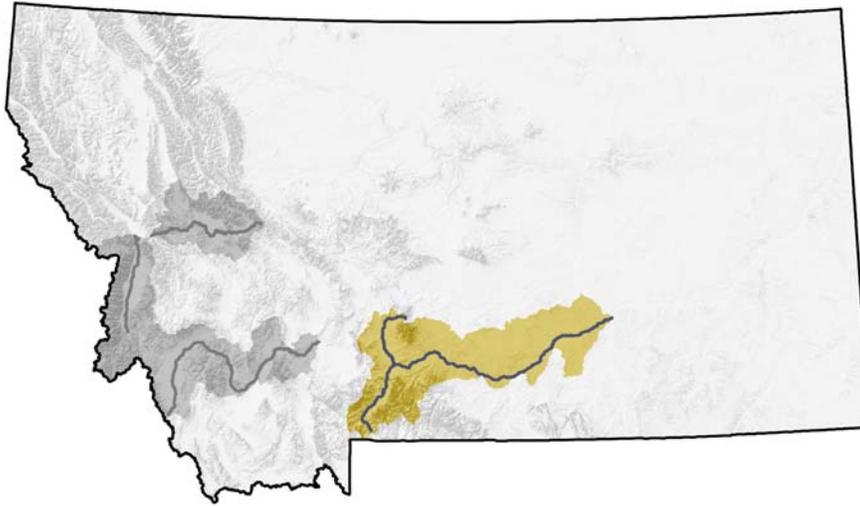


Figure 17. Upper Yellowstone River Focus Area

The Yellowstone River originates in Wyoming and flows through Yellowstone National Park before entering Montana near Gardiner. From the park boundary to Livingston, the river flows north through the Gardiner Basin and eventually enters the Paradise Valley, flanked by the Absarokee Mountains on the east and the Gallatin Range on the west. The river continues in a northeasterly direction from Livingston and meets up with the Missouri River just across the North Dakota border. The Yellowstone has survived as one of the last, large, free-flowing rivers in the continental United States. Lack of impoundments allows spring peak flows and fall and winter low flows that support a naturally unique and dynamic community. The Upper Yellowstone River supports clear, coldwater cutthroat trout fisheries in Yellowstone National Park to the warmwater habitats on the plains. The adjacent environments include cottonwood-willow bottomlands and broad low cover grasslands.

Associated Habitats

| Habitat Type | Habitat Tier | Acres | Miles |
|---|--------------|--------|-------|
| Lowland Lakes | III | 10,838 | |
| Lowland Reservoirs | III | 580 | |
| Mixed Source Rivers (Intermountain and Prairie Flow) | II | | 259 |
| Prairie Streams | I | | 5,378 |
| Intermountain Valley Rivers | II | | 131 |
| Intermountain Valley Streams | II | | 1,068 |
| Mountain Lakes | III | 1,893 | |

Associated Species of Greatest Conservation Need (Tier I Species)

There are a total of 46 aquatic species that are found within the Upper Yellowstone River Focus Area. Tier I species are listed below. All associations can be found in Table 23.

Fish: Yellowstone Cutthroat Trout, Burbot, and Sauger

Conservation Concerns & Strategies

| Conservation Concerns | Conservation Strategies |
|--|---|
| Dewatering as a result of water diversion | Work with public and private land owners to improve efficiency of water use in order to maximize water return |
| Water chemistry problems due to irrigation return water and the discharge of wastewater from coal bed methane operations, and other sources | Support cooperative efforts to minimize impacts of return water due to sedimentation, increased salinity and temperature alteration |
| Riprap and other streambank stabilization work | Work with new stabilization projects to reduce impacts and support efforts to restore existing rip-rap areas to natural condition |
| | Develop statewide riparian best management principles |
| Invasive non-native fish species | Programs to control exotic species and promote natural habitats that support native species but not exotic species |
| Entrainment of juvenile and adult fishes by irrigation diversions or other water intakes | Screening or modification of irrigation diversions or other water intakes in a manner that prevents entrainment of fishes |
| Riparian vegetation effected by range and forest management practices and streamside residential development (such activities destabilize streambanks, increase sediment inputs, reduced shading, and remove woody debris) | Support government and private conservation activities that encourage and support sustainable land management practices in riparian areas |
| Modification and degradation of stream channels caused by various construction or land management practices | Restoration of stream channels or streambanks to a condition that simulates their natural form and function |

| | |
|--|--|
| | Modification of riparian management practices such that riparian vegetation is allowed to recover |
| | Develop statewide riparian best management principles |
| Alterations of the quantity or timing of stream flows, causing dewatering or unnatural flow fluctuations that diminish the quantity or quality of essential habitats | Implementation of various water conservation or flow management practices that restore essential habitats, simulate the natural hydrograph and also protect instream flows |
| Culverts, dams, irrigation diversions, and other instream barriers that fully or partially impede fish movement and reduce connectivity of habitat | Removal or modification of barriers in a manner that restores fish passage |

References

Hansen, A., J. Rotella, L. Klass, and D. Gyskiewicz. 2003. Riparian Habitat Dynamics and Wildlife Along the Upper Yellowstone River. Technical Report #1. Landscape Biodiversity Lab, Montana State University, Bozeman, MT. In cooperation with the Governor's Upper Yellowstone River Task Force.

U.S. Fish and Wildlife Service. 2004. Conservation Focus Areas of the Great Divide: a vast region encompassing the Upper Missouri, Yellowstone and upper Columbia watersheds. Publisher: USFWS, Benton Lake Wildlife Refuge, Great Falls, MT. 77 pp.